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EXAMINER	
LIM, STEVEN	

ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,087	KIM ET AL.	
	Examiner	Art Unit	
	STEVEN LIM	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 28-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10-21,23 and 28-30* is/are rejected.

7)☒ Claim(s) *9 and 22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Procter et al. (US 5440542).

3. Regarding Claim 11, Procter et al. discloses a data transmission method in a wireless communication system, comprising the steps of: encoding first input data of a first bit stream to generate a first frame message having a first frame length (L3 sends to L2 control information to the XCDR where control information consists of two frames, Col. 4, Lines 26-31, Fig. 2B, Items 21 and 22); encoding second input data of a second bit stream longer than said first bit stream to generate a second frame message having a second frame length longer than said first frame length (data in the form of user information is sent using IWF from PSTN to XCDR where the user information consists of multiple frames, Col. 4, Lines 11-47, fig. 2A, Items 20-23 and fig. 2B, Items 19-20 and 23-25, Frames A-F); replacing a portion of the second frame message (user information consisting of frames A-F) with the first frame message (XCDR transcodes all information and substitutes user information with control information, Col. 3, Line 45-

Col. 4, Line 2, Col. 4, Lines 26-59); and transmitting the first frame message in place of the replaced portion of the second frame message (Frames B, C, and D are placed in a FIFO buffer while two frames of signaling information or control information are inserted into the forward transmission stream after Frame A, Fig. 2A and 2B, Col. 4, Lines 2-47).

4. Regarding Claim 12, Procter et al. further discloses the first frame message and the second frame message are multiplexed when the first frame message is generated during transmission of the second frame message (user information is replaces with control data when necessary, Col. 4, Lines 26-47).

5. Regarding Claim 13, Procter et al. further discloses a portion of the second frame message, the first frame message and a remaining portion of the second frame message are intermixingly output in sequence, in said replacing step (user information is transmitted followed by signaling frame which is control information and then remaining user data, Col. 4, Lines 15-47, Fig. 2B and 2C).

6. Regarding Claim 14, Procter et al. further discloses the first frame message and the second frame message from which a portion corresponding to the first frame message is deleted, are intermixingly output in sequence, in said replacing step (signaling frame or control information is placed in the forward transmission stream followed by the remaining user data, Col. 4, Lines 15-47, Fig. 2B and 2C).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-4, 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) in view of Nagatani et al. (US 6097714).

10. Regarding Claim 1, Procter et al. discloses a transmission device for a wireless communication system, comprising: a first message generator for encoding first input data of a first bit stream to generate a first frame message having a first frame length (L3 sends to L2 control information to the XCDR where control information consists of two frames, Col. 4, Lines 26-31, Fig. 2B, Items 21 and 22); a second message generator for encoding second input data of a second bit stream longer than the first bit stream to generate a second frame message having a second frame length longer than the first frame length (data in the form of user information is sent using IWF from PSTN

to XCDR where the user information consists of multiple frames, Col. 4, Lines 11-47, fig. 2A, Items 20-23 and fig. 2B, Items 19-20 and 23-25, Frames A-F); a multiplexer for replacing a portion of the second frame message with the first frame message (XCDR transcodes all information and substitutes user information with control information, Col. 3, Line 45- Col. 4, Line 2, Col. 4, Lines 26-59); however Procter et al. fails to discloses a spreader for spreading an output of the multiplexer.

11. In an analogous art, Nagatani et al. discloses a spreader for spreading an output of the multiplexer (spreading circuit spreads output of serial to parallel converter, Fig. 23, Items 22 and 23, Col. 3, Line 46 – Col. 4, Line 8), which enables introduction of a pn code.

12. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a spreader at the output of the multiplexer in order to allow for the introduction of pn codes and short codes which are standard in a spread spectrum communication system.

13. Regarding Claim 2, Procter et al. further discloses the first frame message and the second frame message are multiplexed when the first frame message is generated during transmission of the second frame message (user information is replaces with control data when necessary, Col. 4, Lines 26-47).

14. Regarding Claim 3, Procter et al. further discloses the multiplexer intermixingly outputs, in sequence, a portion of the second frame message, the replaced first frame message and a remaining portion of the second frame message (user information is

transmitted followed by signaling frame which is control information and then remaining user data, Col. 4, Lines 15-47, Fig. 2B and 2C).

15. Regarding Claim 4, Procter et al. further discloses the multiplexer intermixingly outputs, in sequence, the replaced first frame message and the second frame message from which a portion corresponding to the first frame message is deleted (signaling frame or control information is placed in the forward transmission stream followed by the remaining user data, Col. 4, Lines 15-47, Fig. 2B and 2C).

16. Regarding Claim 10, Procter et al. further discloses a multiplexer however Procter et al. fails to disclose a spreader comprising: an orthogonal code spreader for spreading the frame message output from the multiplexer with an orthogonal code for a dedicated control channel; and a pseudo-random noise (PN) spreader for spreading an output of the orthogonal code spreader with a PN sequence.

17. In an analogous art, Nagatani et al. discloses a spreader comprising: an orthogonal code spreader for spreading the frame message output from the multiplexer with an orthogonal code for a dedicated control channel; and a pseudo-random noise (PN) spreader for spreading an output of the orthogonal code spreader with a PN sequence, Fig. 23, Items 23, 23a and 23b, Col. 4, Lines 14-26), which enables standard modulation techniques in a spread spectrum communication system.

18. It would have been obvious to one having ordinary skill in the art at the time of invention was made to use PN code and orthogonal code in order to utilize standard modulation techniques in a spread spectrum communication system.

19. Regarding Claim 23, Procter et al. further discloses a multiplexer however Procter et al. fails to disclose a spreader comprising: an orthogonal code spreader for spreading the frame message output from the multiplexer with an orthogonal code for a dedicated control channel; and a pseudo-random noise (PN) spreader for spreading an output of the orthogonal code spreader with a PN sequence.

20. In an analogous art, Nagatani et al. discloses a spreader comprising: an orthogonal code spreader for spreading the frame message output from the multiplexer with an orthogonal code for a dedicated control channel; and a pseudo-random noise (PN) spreader for spreading an output of the orthogonal code spreader with a PN sequence, Fig. 23, Items 23, 23a and 23b, Col. 4, Lines 14-26), which enables standard modulation techniques in a spread spectrum communication system.

21. It would have been obvious to one having ordinary skill in the art at the time of invention was made to use PN code and orthogonal code in order to utilize standard modulation techniques in a spread spectrum communication system.

22. Claims 5, 7, 8, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) and Nagatani et al. (US 6097714), and further in view of Odenwalder et al. (US 5909434).

23. Regarding Claim 5, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power controller for increasing a transmission power of the remaining portion of the second

frame message, following the replaced first frame message, to be higher than that of the first frame message.

24. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

25. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

26. Regarding Claims 7 and 8, Procter et al. further discloses a second frame message generator (data in the form of user information is sent using IWF from PSTN to XCDR where the user information consists of multiple frames, Col. 4, Lines 11-47, fig. 2A, Items 20-23 and fig. 2B, Items 19-20 and 23-25, Frames A-F) however Procter et al. fails to disclose the second frame message generator comprises: a cyclic redundancy check (CRC) generator for generating CRC bits according to the second input data of the second frame length; a tail bit generator for generating tail bits and adding the generated tail bits to an output of the CRC generator; a channel encoder for encoding the tail bit-added second frame data at a predefined coding rate; and an interleaver for interleaving the encoded frame message by the second frame length and the interleaver

uniformly distributing symbols generated by encoding one data bit over the respective durations of the whole frame.

27. In an analogous art, Odenwalder et al. discloses a second frame generator comprises a CRC generator for generating CRC bits according to the second input data of the second frame length (Col.3, Lines 31-34, Fig. 2, Item 32), a tail bit generator for generating tail bits and adding the generated tail bits to an output of the CRC generator (Col. 3, Lines 33-39, Fig. 2, Item 34), a channel encoder for encoding the tail bit added second frame data at a predefined coding rate (Col. 3, Lines 42-52, Fig. 2, Item 36), and an interleaver for interleaving the encoded frame message by the second frame length (Col. 3, Lines 59-62, Fig. 2, Item 42), the interleaver uniformly distributing symbols generated by encoding one data bit over the respective durations of the whole frame (Col. 3, Lines 59-62), which enables error correction.

28. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a CRC generator, tail bit generator, channel encoder, and interleaver in order to allow the receiver to check for errors in receiving the data.

29. Regarding Claim 28, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message.

30. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following

the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

31. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

32. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) and Nagatani et al. (US 6097714), and further in view of Examiner's Official Notice.

33. Regarding Claim 6, Procter et al. further discloses a first frame message and second frame message having a length (frames are equal to an amount of time, Col. 4, Lines 26-47), however Procter et al. fails to disclose the first frame message has a frame length of 5ms and the second frame message has a frame length of 20ms.

34. Examiner takes official notice that it is well known in the art that a frame can have any length and frame messages can be of variable length depending on the protocol implemented.

35. It would have been obvious to one having ordinary skill in the art at the time of invention was made to use a 5ms and 20ms length for the frame messages in order to comply with protocols which implement a 5ms control message and 20ms user information message.

36. Claims 15, 20, 21, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) in view of Odenwalder et al. (US 5909434).

37. Regarding Claim 15, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message.

38. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

39. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

40. Regarding Claims 20 and 21, Procter et al. further discloses a second frame message generator (data in the form of user information is sent using IWF from PSTN to XCDR where the user information consists of multiple frames, Col. 4, Lines 11-47, fig. 2A, Items 20-23 and fig. 2B, Items 19-20 and 23-25, Frames A-F) however Procter et al.

fails to disclose the second frame message generator comprises: a cyclic redundancy check (CRC) generator for generating CRC bits according to the second input data of the second frame length; a tail bit generator for generating tail bits and adding the generated tail bits to an output of the CRC generator; a channel encoder for encoding the tail bit-added second frame data at a predefined coding rate; and an interleaver for interleaving the encoded frame message by the second frame length and the interleaver uniformly distributing symbols generated by encoding one data bit over the respective durations of the whole frame.

41. In an analogous art, Odenwalder et al. discloses a second frame generator comprises a CRC generator for generating CRC bits according to the second input data of the second frame length (Col.3, Lines 31-34, Fig. 2, Item 32), a tail bit generator for generating tail bits and adding the generated tail bits to an output of the CRC generator (Col. 3, Lines 33-39, Fig. 2, Item 34), a channel encoder for encoding the tail bit added second frame data at a predefined coding rate (Col. 3, Lines 42-52, Fig. 2, Item 36), and an interleaver for interleaving the encoded frame message by the second frame length (Col. 3, Lines 59-62, Fig. 2, Item 42), the interleaver uniformly distributing symbols generated by encoding one data bit over the respective durations of the whole frame (Col. 3, Lines 59-62), which enables error correction.

42. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a CRC generator, tail bit generator, channel encoder, and interleaver in order to allow the receiver to check for errors in receiving the data.

43. Regarding Claim 29, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message.

44. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

45. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

46. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) in view of Examiner's Official Notice.

47. Regarding Claim 16, Procter et al. further discloses a first frame message and second frame message having a length (frames are equal to an amount of time, Col. 4, Lines 26-47), however Procter et al. fails to disclose the first frame message has a frame length of 5ms and the second frame message has a frame length of 20ms.

48. Examiner takes official notice that it is well known in the art that a frame can have any length and frame messages can be of variable length depending on the protocol implemented.

49. It would have been obvious to one having ordinary skill in the art at the time of invention was made to use a 5ms and 20ms length for the frame messages in order to comply with protocols which implement a 5ms control message and 20ms user information message.

50. Regarding Claim 17, Procter et al. further discloses a portion of the second frame message is deleted (placed into a buffer) to insert the first frame message into the deleted portion for a second duration, and the remaining portion of the second frame message is output for third and fourth durations, in said replacing step (Col. 4, Lines 15-47) .

51. Regarding Claim 18, Procter et al. further discloses a portion of the second frame message is deleted (placed into a buffer) to insert the first frame message in the deleted portion for a first duration, and the remaining portion of the second frame message is output for second, third and fourth durations, in said replacing step (Col. 4, Lines 15-47).

52. Claims 19 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Procter et al. (US 5440542) in view of Examiner's Official Notice and further in view of Odenwalder et al. (US 5909434).

53. Regarding Claim 19, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power

controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message.

54. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

55. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

56. Regarding Claim 30, Procter et al. further discloses sending control information for power control (Col. 4, Lines 26-47) however Procter et al. fails to disclose a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message.

57. In an analogous art, Odenwalder et al. discloses a power controller for increasing a transmission power of the remaining portion of the second frame message, following the replaced first frame message, to be higher than that of the first frame message (Col. 13, Lines 5-15, Fig. 2, Item 44), which enables the receiver to maintain an appropriate channel quality.

58. It would have been obvious to one having ordinary skill in the art at the time of invention was made to include a power controller for increasing a transmission power of the remaining portion of the second frame message in order to allow the receiver to maintain an appropriate channel quality.

Response to Arguments

59. Applicant's arguments filed 5/3/2010 have been fully considered but they are not persuasive. Regarding applicant's argument that the references fail to disclose the limitations of Claims 1 and 11, Examiner disagrees because the limitations as broadly claimed and interpreted are disclosed by Proctor as a L3 sending to the L2 using a transcoder, a message including control information and consisting of two frames (Col. 4, Lines 26-47) which is interpreted to be the same as applicant's first frame message because a message does not preclude the use of multiple frames. Proctor further discloses user information which is transcoded and has a length of more than two frames which is greater in length than the control message (user information message frames B, C, and D are buffered to allow control message to be transmitted first before transcoding the user message, Col. 4, Lines 26-56) which is interpreted to be the same as applicant's encoding a second frame message having a length longer than the first frame message. Proctor also discloses that a portion of the user information message (applicant's second frame message) is replaced with the control message (user information frames are buffered, Blocks B, C, and D, while control frame message is

transcoded after a first frame of the user information is transcoded, Block A, all by the transcoder, Col. 4, Lines 26-56), which is interpreted to be the same as applicants claimed replacing a portion of the second frame message with the first frame message. Therefore the limitations as broadly claimed and interpreted are disclosed by the references as listed above in the Final Rejection.

Allowable Subject Matter

60. Claims 9 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

61. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN LIM whose telephone number is (571)270-1210. The examiner can normally be reached on Mon-Thurs 9:00am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven Lim/
Examiner, Art Unit 2617

/LESTER KINCAID/

Supervisory Patent Examiner, Art Unit 2617